

## AMENDMENTS TO THE CLAIMS

Please cancel claims 136, 140, 149, 154, 155, 209, 210, 212-214, 216, 219, 220, 223, 224 and 226 without prejudice.

Please amend claims 137, 138, 141-148, 150-153, 203-205, 217, 218, 221 and 225 as shown the following complete list of claims.

1.-136. (Canceled).

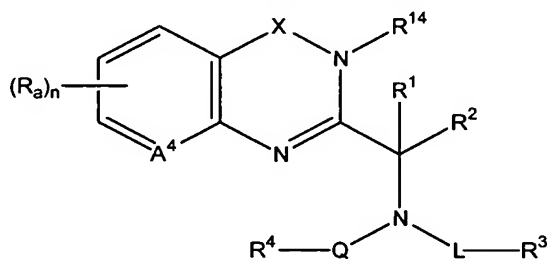
137. (Currently amended) The compound of Claim ~~136~~ 141, wherein X is -C(O)-.

138. (Currently amended) The compound of Claim ~~136~~ 141, wherein R<sup>14</sup> is a substituted or unsubstituted phenyl.

139. (Previously presented) The compound of Claim 137, wherein R<sup>14</sup> is a substituted or unsubstituted phenyl.

140. (Canceled).

141. (Currently amended) ~~The A compound of Claim 136,~~ having the formula:



or a pharmaceutically acceptable salt thereof wherein:

$A^4$  is N;

X is -C(O)- or -CH<sub>2</sub>-;

R<sup>1</sup> and R<sup>2</sup> are members independently selected from the group consisting of H and (C<sub>1</sub>-C<sub>4</sub>)alkyl;

R<sup>3</sup> is a member selected from the group consisting of hydroxy, (C<sub>1</sub>-C<sub>8</sub>)alkoxy, amino, (C<sub>1</sub>-C<sub>8</sub>)alkylamino, di(C<sub>1</sub>-C<sub>8</sub>)alkylamino, (C<sub>2</sub>-C<sub>8</sub>)heteroalkyl, (C<sub>3</sub>-C<sub>9</sub>)heterocyclyl, (C<sub>1</sub>-C<sub>8</sub>)acylamino, amidino, guanidino, ureido, cyano, heteroaryl, -CONR<sup>9</sup>R<sup>10</sup> and -CO<sub>2</sub>R<sup>11</sup>;

R<sup>4</sup> is substituted or unsubstituted benzyl, wherein said substituents are selected from the group consisting of halogen, halo(C<sub>1</sub>-C<sub>4</sub>)alkyl, halo(C<sub>1</sub>-C<sub>4</sub>)alkoxy, cyano, nitro and phenyl;

each R<sup>9</sup>, R<sup>10</sup> and R<sup>11</sup> is independently selected from the group consisting of H, (C<sub>1</sub>-C<sub>8</sub>)alkyl, (C<sub>2</sub>-C<sub>8</sub>)heteroalkyl, heteroaryl, aryl, heteroaryl(C<sub>1</sub>-C<sub>6</sub>)alkyl, heteroaryl(C<sub>2</sub>-C<sub>8</sub>)heteroalkyl, aryl(C<sub>1</sub>-C<sub>8</sub>)alkyl and aryl(C<sub>2</sub>-C<sub>8</sub>)heteroalkyl;

R<sup>14</sup> is a substituted or unsubstituted member selected from the group consisting of phenyl, pyridyl, thiazolyl, thienyl and pyrimidinyl;

Q is -C(O)-;

L is (C<sub>1</sub>-C<sub>8</sub>)alkylene;

the subscript n is an integer from 0 to 4; and

each R<sub>a</sub> is independently selected from the group consisting of halogen, -OR', -OC(O)R', -NR'R'', -SR', -R', -CN, -NO<sub>2</sub>, -CO<sub>2</sub>R', -CONR'R'', -C(O)R', -OC(O)NR'R'', -NR''C(O)R', -NR''C(O)<sub>2</sub>R', -NR'-C(O)NR''R''', -NH-C(NH<sub>2</sub>)=NH, -NR'C(NH<sub>2</sub>)=NH, -NH-C(NH<sub>2</sub>)=NR', -S(O)R', -S(O)<sub>2</sub>R', -S(O)<sub>2</sub>NR'R'', -N<sub>3</sub>, -CH(Ph)<sub>2</sub>, perfluoro(C<sub>1</sub>-C<sub>4</sub>)alkoxy and perfluoro(C<sub>1</sub>-C<sub>4</sub>)alkyl, wherein R', R'' and R''' are each independently selected from the group consisting of H, (C<sub>1</sub>-C<sub>8</sub>)alkyl, (C<sub>2</sub>-C<sub>8</sub>)heteroalkyl, unsubstituted aryl, unsubstituted heteroaryl, (unsubstituted aryl)-(C<sub>1</sub>-C<sub>4</sub>)alkyl and (unsubstituted aryl)oxy-(C<sub>1</sub>-C<sub>4</sub>)alkyl.

142. (Currently amended) The compound of Claim ~~136~~ 141, wherein R<sup>14</sup> is selected from the group consisting of substituted phenyl, substituted pyridyl, substituted thiazolyl and substituted thienyl, wherein the substituents are selected from the group consisting of cyano, halogen, (C<sub>1</sub>-C<sub>8</sub>)alkoxy, (C<sub>1</sub>-C<sub>8</sub>)alkyl, (C<sub>2</sub>-C<sub>8</sub>)heteroalkyl, CONH<sub>2</sub>, methylenedioxy and ethylenedioxy.

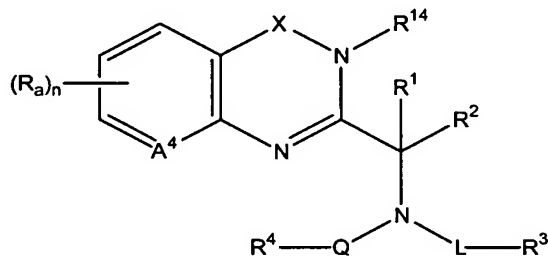
143. (Currently Amended) The compound of Claim ~~136~~ 151, wherein R<sup>14</sup> is substituted phenyl, wherein the substituents are selected from the group consisting of cyano, halogen, (C<sub>1</sub>-C<sub>8</sub>)alkoxy, (C<sub>1</sub>-C<sub>8</sub>)alkyl, (C<sub>2</sub>-C<sub>8</sub>)heteroalkyl, CONH<sub>2</sub>, methylenedioxy and ethylenedioxy.

144. (Currently amended) The compound of Claim ~~136~~ 141, wherein ~~R<sup>4</sup> is substituted or unsubstituted benzyl, wherein said substituents are selected from the group consisting of halogen, halo(C<sub>1</sub>-C<sub>4</sub>)alkyl, halo(C<sub>1</sub>-C<sub>4</sub>)alkoxy, cyano, nitro and phenyl, and~~ R<sup>14</sup> is substituted phenyl, wherein the substituents are selected from the group consisting of cyano, halogen,

(C<sub>1</sub>-C<sub>8</sub>)alkoxy, (C<sub>1</sub>-C<sub>8</sub>)alkyl, (C<sub>2</sub>-C<sub>8</sub>)heteroalkyl, CONH<sub>2</sub>, methylenedioxy and ethylenedioxy.

145. (Currently amended) The compound of Claim ~~136~~ 141, wherein R<sup>1</sup> is selected from the group consisting of methyl, ethyl and propyl, and R<sup>2</sup> is hydrogen.

146. (Currently amended) ~~The A compound of Claim 136,~~ having the formula:



or a pharmaceutically acceptable salt thereof wherein:

A<sup>4</sup> is N;

X is -C(O)- or -CH<sub>2</sub>-;

R<sup>1</sup> and R<sup>2</sup> are each methyl;

R<sup>3</sup> is a member selected from the group consisting of hydroxy, (C<sub>1</sub>-C<sub>8</sub>)alkoxy, amino, (C<sub>1</sub>-C<sub>8</sub>)alkylamino, di(C<sub>1</sub>-C<sub>8</sub>)alkylamino, (C<sub>2</sub>-C<sub>8</sub>)heteroalkyl, (C<sub>3</sub>-C<sub>9</sub>)heterocyclyl, (C<sub>1</sub>-C<sub>8</sub>)acylamino, amidino, guanidino, ureido, cyano, heteroaryl, -CONR<sup>9</sup>R<sup>10</sup> and -CO<sub>2</sub>R<sup>11</sup>;

R<sup>4</sup> is a member selected from the group consisting of (C<sub>1</sub>-C<sub>20</sub>)alkyl, (C<sub>2</sub>-C<sub>20</sub>)heteroalkyl, heteroaryl, aryl, heteroaryl(C<sub>1</sub>-C<sub>6</sub>)alkyl, heteroaryl(C<sub>2</sub>-C<sub>6</sub>)heteroalkyl, aryl(C<sub>1</sub>-C<sub>6</sub>)alkyl and aryl(C<sub>2</sub>-C<sub>6</sub>)heteroalkyl;

each R<sup>9</sup>, R<sup>10</sup> and R<sup>11</sup> is independently selected from the group consisting of H, (C<sub>1</sub>-C<sub>8</sub>)alkyl, (C<sub>2</sub>-C<sub>8</sub>)heteroalkyl, heteroaryl, aryl, heteroaryl(C<sub>1</sub>-C<sub>6</sub>)alkyl, heteroaryl(C<sub>2</sub>-C<sub>8</sub>)heteroalkyl, aryl(C<sub>1</sub>-C<sub>8</sub>)alkyl and aryl(C<sub>2</sub>-C<sub>8</sub>)heteroalkyl;

R<sup>14</sup> is a substituted or unsubstituted member selected from the group consisting of phenyl, pyridyl, thiazolyl, thienyl and pyrimidinyl;

Q is -C(O)-;

L is (C<sub>1</sub>-C<sub>8</sub>)alkylene;

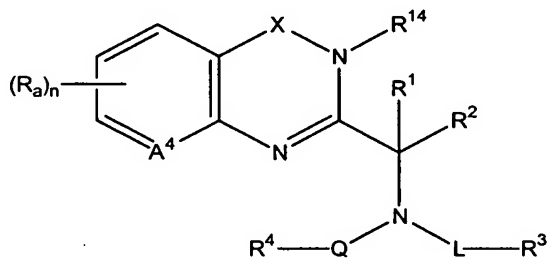
the subscript n is an integer from 0 to 4; and

each R<sub>a</sub> is independently selected from the group consisting of halogen, -OR', -OC(O)R', -NR'R'', -SR', -R', -CN, -NO<sub>2</sub>, -CO<sub>2</sub>R', -CONR'R'', -C(O)R', -OC(O)NR'R'', -NR''C(O)R', -NR''C(O)<sub>2</sub>R', -NR'-C(O)NR''R'', -NH-C(NH<sub>2</sub>)=NH, -NR'C(NH<sub>2</sub>)=NH, -NH-C(NH<sub>2</sub>)=NR', -S(O)R', -S(O)<sub>2</sub>R', -S(O)<sub>2</sub>NR'R'', -N<sub>3</sub>, -CH(Ph)<sub>2</sub>, perfluoro(C<sub>1</sub>-C<sub>4</sub>)alkoxy

and perfluoro(C<sub>1</sub>-C<sub>4</sub>)alkyl, wherein R', R'' and R''' are each independently selected from the group consisting of H, (C<sub>1</sub>-C<sub>8</sub>)alkyl, (C<sub>2</sub>-C<sub>8</sub>)heteroalkyl, unsubstituted aryl, unsubstituted heteroaryl, (unsubstituted aryl)-(C<sub>1</sub>-C<sub>4</sub>)alkyl and (unsubstituted aryl)oxy-(C<sub>1</sub>-C<sub>4</sub>)alkyl.

147. (Currently amended) The compound of Claim ~~136~~ 141, wherein L is (C<sub>1</sub>-C<sub>4</sub>)alkylene.

148. (Currently amended) ~~The A compound of Claim 136,~~ having the formula:



or a pharmaceutically acceptable salt thereof wherein:

A<sup>4</sup> is N;

X is -C(O)- or -CH<sub>2</sub>-;

R<sup>1</sup> and R<sup>2</sup> are members independently selected from the group consisting of H and (C<sub>1</sub>-C<sub>4</sub>)alkyl;

R<sup>3</sup> is a member selected from the group consisting of (C<sub>1</sub>-C<sub>8</sub>)alkoxy, (C<sub>3</sub>-C<sub>9</sub>)heterocyclyl and heteroaryl (C<sub>1</sub>-C<sub>8</sub>)acylamino;

R<sup>4</sup> is a member selected from the group consisting of (C<sub>1</sub>-C<sub>20</sub>)alkyl, (C<sub>2</sub>-C<sub>20</sub>)heteroalkyl, heteroaryl, aryl, heteroaryl(C<sub>1</sub>-C<sub>6</sub>)alkyl, heteroaryl(C<sub>2</sub>-C<sub>6</sub>)heteroalkyl, aryl(C<sub>1</sub>-C<sub>6</sub>)alkyl and aryl(C<sub>2</sub>-C<sub>6</sub>)heteroalkyl;

R<sup>14</sup> is a substituted or unsubstituted member selected from the group consisting of phenyl, pyridyl, thiazolyl, thienyl and pyrimidinyl;

Q is -C(O)-;

L is (C<sub>1</sub>-C<sub>8</sub>)alkylene;

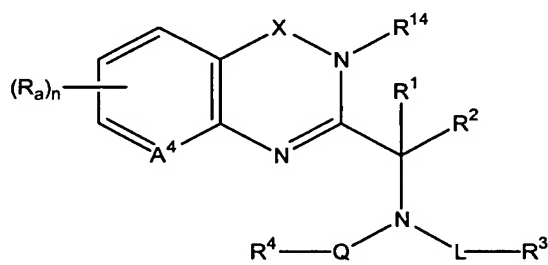
the subscript n is an integer from 0 to 4; and

each R<sub>a</sub> is independently selected from the group consisting of halogen, -OR', -OC(O)R', -NR'R'', -SR', -R', -CN, -NO<sub>2</sub>, -CO<sub>2</sub>R', -CONR'R'', -C(O)R', -OC(O)NR'R'', -NR''C(O)R', -NR''C(O)<sub>2</sub>R', -NR'-C(O)NR''R''', -NH-C(NH<sub>2</sub>)=NH, -NR'C(NH<sub>2</sub>)=NH, -NH-C(NH<sub>2</sub>)=NR', -S(O)R', -S(O)<sub>2</sub>R', -S(O)<sub>2</sub>NR'R'', -N<sub>3</sub>, -CH(Ph)<sub>2</sub>, perfluoro(C<sub>1</sub>-C<sub>4</sub>)alkoxy and perfluoro(C<sub>1</sub>-C<sub>4</sub>)alkyl, wherein R', R'' and R''' are each independently selected from the group consisting of H, (C<sub>1</sub>-C<sub>8</sub>)alkyl, (C<sub>2</sub>-C<sub>8</sub>)heteroalkyl, unsubstituted aryl, unsubstituted heteroaryl, (unsubstituted aryl)-(C<sub>1</sub>-C<sub>4</sub>)alkyl and (unsubstituted aryl)oxy-(C<sub>1</sub>-C<sub>4</sub>)alkyl.

149. (Canceled).

150. (Currently amended) The compound of Claim ~~136~~ 141, wherein R<sup>3</sup> is heteroaryl and R<sup>4</sup> is substituted or unsubstituted benzyl, wherein said substituents are selected from the group consisting of halogen, halo(C<sub>1</sub>-C<sub>4</sub>)alkyl, halo(C<sub>1</sub>-C<sub>4</sub>)alkoxy, cyano, nitro and phenyl.

151. (Currently amended) ~~The A~~ compound of Claim ~~136~~, having the formula:



or a pharmaceutically acceptable salt thereof wherein:

A<sup>4</sup> is N;

X is -C(O)- or -CH<sub>2</sub>-;

R<sup>1</sup> and R<sup>2</sup> are members independently selected from the group consisting of H and (C<sub>1</sub>-C<sub>4</sub>)alkyl;

R<sup>3</sup> is selected from the group consisting of substituted or unsubstituted pyridyl and substituted or unsubstituted imidazolyl;

R<sup>4</sup> is a member selected from the group consisting of (C<sub>1</sub>-C<sub>20</sub>)alkyl, (C<sub>2</sub>-C<sub>20</sub>)heteroalkyl, heteroaryl, aryl, heteroaryl(C<sub>1</sub>-C<sub>6</sub>)alkyl, heteroaryl(C<sub>2</sub>-C<sub>6</sub>)heteroalkyl, aryl(C<sub>1</sub>-C<sub>6</sub>)alkyl and aryl(C<sub>2</sub>-C<sub>6</sub>)heteroalkyl;

R<sup>14</sup> is a substituted or unsubstituted member selected from the group consisting of phenyl, pyridyl, thiazolyl, thienyl and pyrimidinyl;

Q is -C(O)-;

L is (C<sub>1</sub>-C<sub>8</sub>)alkylene;

the subscript n is an integer from 0 to 4; and

each R<sub>a</sub> is independently selected from the group consisting of halogen, -OR', -OC(O)R', -NR'R'', -SR', -R', -CN, -NO<sub>2</sub>, -CO<sub>2</sub>R', -CONR'R'', -C(O)R', -OC(O)NR'R'', -NR''C(O)R', -NR''C(O)<sub>2</sub>R', -NR'-C(O)NR''R''', -NH-C(NH<sub>2</sub>)=NH, -NR'C(NH<sub>2</sub>)=NH, -NH-C(NH<sub>2</sub>)=NR', -S(O)R', -S(O)<sub>2</sub>R', -S(O)<sub>2</sub>NR'R'', -N<sub>3</sub>, -CH(Ph)<sub>2</sub>, perfluoro(C<sub>1</sub>-C<sub>4</sub>)alkoxy and perfluoro(C<sub>1</sub>-C<sub>4</sub>)alkyl, wherein R', R'' and R''' are each independently selected from the

group consisting of H, (C<sub>1</sub>-C<sub>8</sub>)alkyl, (C<sub>2</sub>-C<sub>8</sub>)heteroalkyl, unsubstituted aryl, unsubstituted heteroaryl, (unsubstituted aryl)-(C<sub>1</sub>-C<sub>4</sub>)alkyl and (unsubstituted aryl)oxy-(C<sub>1</sub>-C<sub>4</sub>)alkyl.

152. (Currently amended) The compound of Claim ~~136~~ 141, wherein R<sup>1</sup> and R<sup>2</sup> are each independently selected from the group consisting of H, methyl and ethyl; R<sup>14</sup> is phenyl; L is methylene, ethylene or propylene; and R<sup>3</sup> is selected from the group consisting of substituted or unsubstituted pyridyl and substituted or unsubstituted imidazolyl; ~~and R<sup>4</sup> is substituted or unsubstituted benzyl, wherein said substituents are selected from the group consisting of halogen, halo(C<sub>1</sub>-C<sub>4</sub>)alkyl, halo(C<sub>1</sub>-C<sub>4</sub>)alkoxy, cyano, nitro and phenyl.~~

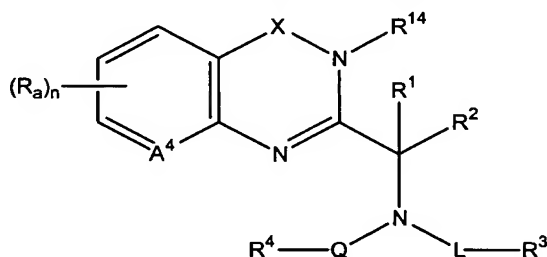
153. (Currently amended) A pharmaceutical composition comprising the compound of Claim ~~136~~ 141, 146, 148 or 151 and a pharmaceutically acceptable carrier or diluent.

154.-202. (Canceled).

203. (Currently amended) A method for the modulation of CXCR3 function in a cell, comprising contacting said cell with a compound of Claim ~~136~~ 141, 146, 148 or 151.

204. (Currently amended) A method for the modulation of CXCR3 function, comprising contacting a CXCR3 protein with a compound of Claim ~~136~~ 141, 146, 148 or 151.

205. (Currently amended) A compound having the formula:



or a pharmaceutically acceptable salt thereof wherein:

A<sup>4</sup> is N;

X is -C(O)- or -CH<sub>2</sub>- ;

R<sup>1</sup> and R<sup>2</sup> are members independently selected from the group consisting of H and (C<sub>1</sub>-C<sub>4</sub>)alkyl;

R<sup>3</sup> is a member selected from the group consisting of hydroxy, (C<sub>1</sub>-C<sub>8</sub>)alkoxy, amino, (C<sub>1</sub>-C<sub>8</sub>)alkylamino, di(C<sub>1</sub>-C<sub>8</sub>)alkylamino, (C<sub>2</sub>-C<sub>8</sub>)heteroalkyl, (C<sub>3</sub>-C<sub>9</sub>)heterocyclyl, (C<sub>1</sub>-C<sub>8</sub>)acylamino, amidino, guanidino, ureido, cyano, heteroaryl, -CONR<sup>9</sup>R<sup>10</sup> and -CO<sub>2</sub>R<sup>11</sup>;

~~R<sup>4</sup> is a member selected from the group consisting of (C<sub>1</sub>-C<sub>20</sub>)alkyl, (C<sub>2</sub>-C<sub>20</sub>)heteroalkyl, heteroaryl, aryl, heteroaryl(C<sub>1</sub>-C<sub>6</sub>)alkyl, heteroaryl(C<sub>2</sub>-C<sub>6</sub>)heteroalkyl, aryl(C<sub>1</sub>-C<sub>6</sub>)alkyl and aryl(C<sub>2</sub>-C<sub>6</sub>)heteroalkyl;~~

R<sup>4</sup> is substituted or unsubstituted benzyl, wherein said substituents are selected from the group consisting of halogen, halo(C<sub>1</sub>-C<sub>4</sub>)alkyl, halo(C<sub>1</sub>-C<sub>4</sub>)alkoxy, cyano, nitro and phenyl;

each R<sup>9</sup>, R<sup>10</sup> and R<sup>11</sup> is independently selected from the group consisting of H, (C<sub>1</sub>-C<sub>8</sub>)alkyl, (C<sub>2</sub>-C<sub>8</sub>)heteroalkyl, heteroaryl, aryl, heteroaryl(C<sub>1</sub>-C<sub>6</sub>)alkyl, heteroaryl(C<sub>2</sub>-C<sub>8</sub>)heteroalkyl, aryl(C<sub>1</sub>-C<sub>8</sub>)alkyl and aryl(C<sub>2</sub>-C<sub>8</sub>)heteroalkyl;

R<sup>14</sup> is substituted or unsubstituted aryl or heteroaryl;

Q is -C(O)-;

L is (C<sub>1</sub>-C<sub>8</sub>)alkylene;

the subscript n is an integer from 0 to 4; and

each R<sub>a</sub> is independently selected from the group consisting of halogen, -OR', -OC(O)R', -NR'R'', -SR', -R', -CN, -NO<sub>2</sub>, -CO<sub>2</sub>R', -CONR'R'', -C(O)R', -OC(O)NR'R'', -NR''C(O)R', -NR''C(O)<sub>2</sub>R', -NR'-C(O)NR''R''', -NH-C(NH<sub>2</sub>)=NH, -NR'C(NH<sub>2</sub>)=NH, -NH-C(NH<sub>2</sub>)=NR', -S(O)R', -S(O)<sub>2</sub>R', -S(O)<sub>2</sub>NR'R'', -N<sub>3</sub>, -CH(Ph)<sub>2</sub>, perfluoro(C<sub>1</sub>-C<sub>4</sub>)alkoxy and perfluoro(C<sub>1</sub>-C<sub>4</sub>)alkyl, wherein R', R'' and R''' are each independently selected from the group consisting of H, (C<sub>1</sub>-C<sub>8</sub>)alkyl, (C<sub>2</sub>-C<sub>8</sub>)heteroalkyl, unsubstituted aryl, unsubstituted heteroaryl, (unsubstituted aryl)-(C<sub>1</sub>-C<sub>4</sub>)alkyl and (unsubstituted aryl)oxy-(C<sub>1</sub>-C<sub>4</sub>)alkyl.

206. (Previously presented) The compound of Claim 205, wherein X is -C(O)-.

207. (Previously presented) The pharmaceutical composition of Claim 153, wherein X is -C(O)-.

208. (Previously presented) The pharmaceutical composition of Claim 153, wherein R<sup>14</sup> is a substituted or unsubstituted phenyl.

209.-210. (Canceled).

211. (Previously presented) The pharmaceutical composition of Claim 153, wherein R<sup>14</sup> is selected from the group consisting of substituted phenyl, substituted pyridyl, substituted thiazolyl and substituted thienyl, wherein the substituents are selected from the group consisting of cyano, halogen, (C<sub>1</sub>-C<sub>8</sub>)alkoxy, (C<sub>1</sub>-C<sub>8</sub>)alkyl, (C<sub>2</sub>-C<sub>8</sub>)heteroalkyl, CONH<sub>2</sub>, methylenedioxy and ethylenedioxy.

212.-214. (Canceled).

215. (Previously presented) The pharmaceutical composition of Claim 153, wherein L is (C<sub>1</sub>-C<sub>4</sub>)alkylene.

216. (Canceled).

217. (Currently amended) The method of Claim ~~154~~ 203, wherein X is -C(O)-.

218. (Currently amended) The method of Claim ~~154~~ 203, wherein R<sup>14</sup> is a substituted or unsubstituted phenyl.

219-220. (Canceled).

221. (Currently amended) The method of Claim ~~154~~ 203, wherein R<sup>14</sup> is selected from the group consisting of substituted phenyl, substituted pyridyl, substituted thiazolyl and substituted thienyl, wherein the substituents are selected from the group consisting of cyano, halogen, (C<sub>1</sub>-C<sub>8</sub>)alkoxy, (C<sub>1</sub>-C<sub>8</sub>)alkyl, (C<sub>2</sub>-C<sub>8</sub>)heteroalkyl, CONH<sub>2</sub>, methylenedioxy and ethylenedioxy.

222. (Previously presented) The method of Claim 221, wherein R<sup>14</sup> is substituted phenyl, wherein the substituents are selected from the group consisting of cyano, halogen, (C<sub>1</sub>-C<sub>8</sub>)alkoxy, (C<sub>1</sub>-C<sub>8</sub>)alkyl, (C<sub>2</sub>-C<sub>8</sub>)heteroalkyl, CONH<sub>2</sub>, methylenedioxy and ethylenedioxy.

223.-224. (Canceled).



225. (Currently amended) The method of Claim ~~154~~ 204, wherein L is (C<sub>1</sub>-C<sub>4</sub>)alkylene.

226. (Canceled).